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| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 10/790,220  | 03/02/2004  | Tsuyoshi Okazaki     | 118772              | 9852             |
| 25944   | 7590        | 05/19/2005           | EXAMINER            |                  |
| OLIFF & BERRIDGE, PLC<br>P.O. BOX 19928<br>ALEXANDRIA, VA 22320 |             |                      | KIM, RICHARD H      |                  |
|   |             |                      | ART UNIT            | PAPER NUMBER     |
|   |             |                      | 2871                |                  |

DATE MAILED: 05/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

E14

|                              |                                      |                                       |  |
|------------------------------|--------------------------------------|---------------------------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/790,220 | <b>Applicant(s)</b><br>OKAZAKI ET AL. |  |
|                              | <b>Examiner</b><br>Richard H. Kim    | <b>Art Unit</b><br>2871               |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>3/2/04</u> . | 6) <input type="checkbox"/> Other: ____.  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

2. Claims 1-4 and 8 are rejected under 35 U.S.C. 102(e) as being anticipated by Kim et al. (US 6,654,090 B1).

Referring to claims 1 and 8, Kim et al. discloses a liquid crystal device comprises in an electronic equipment comprising an array substrate on which a plurality of pixel electrodes are formed and arranged in a matrix manner (Fig. 2a, ref. 13); an opposed substrate on which a conductive light shielding film having openings at positions opposing the pixel electrodes is formed (Fig. 2a, ref. 25); and a liquid crystal layer interposed between the substrates, the liquid crystal layer being formed of a liquid crystal having negative dielectric anisotropy exhibiting homeotropic alignment in the initial alignment state (col. 5, lines 46-48; col. 7, lines 16-32), and

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the liquid crystal being controlled in alignment by an electric field between the pixel electrodes and the light shielding film (13, 17). Since the electric field is formed between the common electrode and the pixel electrode, and electric field also be formed between the pixel electrode and the light shielding film.

Referring to claim 2, Kim et al. discloses an opening formed on the pixel electrode (Fig. 2a, ref. 13).

Referring to claim 3, Kim et al. discloses chiral material being added to the liquid crystal layer (col. 5, lines 46-48).

Referring to claims 4 and 5, Kim et al. discloses that the pixel electrode is formed into a regular polygon shape having no acute angle portion (Fig. 2a, ref. 13).

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kim et al. in view of Baek et al. (US 6,657,689 B2).

Kim et al. discloses the device previously recited, but fails to disclose the device further comprising a circular polarization injecting device onto the array substrate and the opposed substrate.

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Baek et al. discloses a device comprising a circular polarization injecting device onto the array substrate and the opposed substrate (Fig. 9, ref. 215, 231).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to employ a circular polarization injecting device onto the array substrate and the opposed substrate since one would be motivated to achieve high contrast ratio (abstract).

5. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kim et al. in view of Hayashi (US 6,540,361).

Kim et al. disclose the device previously recited, but fails to disclose that the pixel pitch is 20 microns or below.

Hayashi discloses a device wherein the pixel pitch is 20 microns or below (col. 2, lines 20-22).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to employ a device wherein the pixel pitch is 20 microns or below since one would be motivated to obtain sufficiently high resolution (col. 2, lines 20-22)

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Richard H. Kim whose telephone number is (571)272-2294. The examiner can normally be reached on 9:00-6:30 M-F.

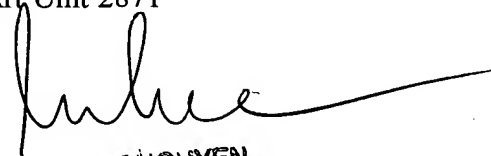
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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert H. Kim can be reached on (571)272-2293. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

RHK

Richard H Kim  
Examiner  
Art Unit 2871



LONG T. NGUYEN  
PRIMARY EXAMINER